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Records of some bird species hitherto rarely found in DPR Korea

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The Korean peninsula received only superficial ornithological exploration until relatively recently. The birds of the present-day Democratic People's Republic of Korea (DPRK='north Korea') are particularly poorly known (Tomek (1999, 2002). Even the south lacks a published, publicly accessible, synthesis of species status subsequent to Gore & Won (1971), other than coded lists such as Won Pyong-Oh (1996) and Lee *et al.* (2000), though an unpublished thesis (Park Jin-Young 2002) and extensive internet discussion, notably that hosted by the organisation Birds Korea, present records. During 3.5 years in DPRK and three short visits to the country, I surveyed birds extensively in central Pyongyang (the capital), the Myohyang(-san) Mountains and the adjacent town of Hyangsan, and made visits when permitted to other sites, very rarely on or near the coast (Table 1, Fig. 1). I found many species known by few previous records from DPRK according to Tomek's (1999, 2002) comprehensive review. This covers nearly all internationally available sources, but few from DPRK citizens since the monumental Won Hong Koo (1963–65). Judging by records in BirdLife International (2001) substantial

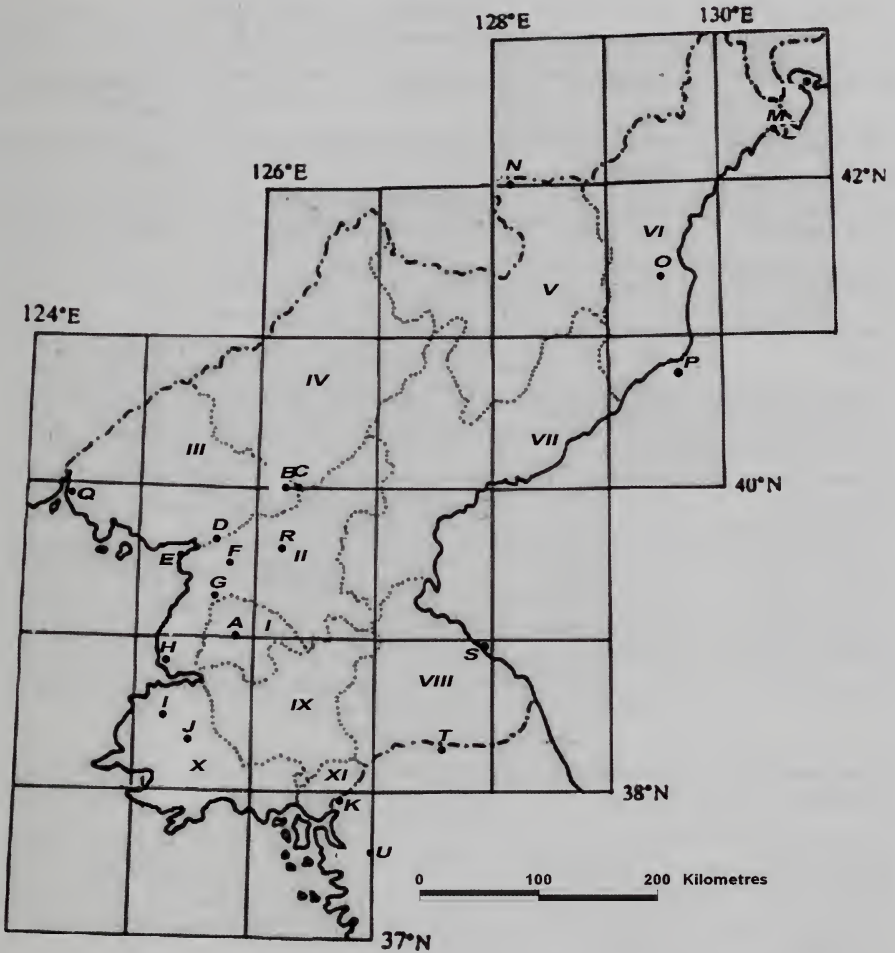


Figure 1: north and central Korea, showing survey sites (A–K) and other localities mentioned in the text. A = Pyongyang; B = Hyangsan; C = Myohyang; D = Anju; E = Mundok MBR; F = Ryanggyo Reservoir; G = Sogam dam; H = Ryonggang hot springs; I = Kuwol; J = Sinchon; K = Panmunjom; M = Manpo; N = Paekdu; O = Chuul; P = Yang-do; Q = Ryongampho; R = Tokchon; S = Kuum; T = Kumhwa; U = Seoul. Provinces: I = Pyonhang City; II = South Pyongan; III = North Pyongan; IV = Chagang; V = Ryonggang; VI North Hamgyong; VII = South Hamgyong; VIII = Kangwon; IX = North Hwanghae; X = South Hwanghae; XII = Kaesong City.

———— Land-sea boundary
 - - - - - National boundary
 Provincial boundary

TABLE 1
Observation sites¹.

Site name	Character	Observations ²	Coordinates and altitudes ³
Anju, South Pyongan province	Hotel on edge of town	a few overnights in mid and late October 2004	39°37'N, 125°38'E; 0–35 m
Anju bridge, South Pyongan province	Bridge over tidal river	many brief roadside stops in 2001–03, some in 2000, 2004	39°38'N, 125°37'E; sea level
Diplomatic Compound, Pyongyang	Residential area of town	incidental throughout 2000–04	39°02'N, 125°48'E; 15 m
Han-Imjin-gang near Odu-San	lowland river plain	casual record from N. Moores (<i>in litt.</i> 2006)	37°45'N, 126°42'E; sea level
Dongrim-ri, Mundok Migratory Bird Reserve, South Pyongan province	Farmland and marsh on estuary	2–3 April 2003; 25 March, 21–23 October, 4 November 2004	39°33'N, 125°22'E; sea level
Hyangam-chon, Myohyang-san, North Pyongan province	Large, fairly level, stream amidst mountains	5–8 hours per day once or twice in various months, plus many incidental	40°01'N, 126°12'E; 100–170 m
Hyangsan, North Pyongan province	Riverside town at foot of mountains	2–3 hours per day, many days in 2001–04, some in 1999–2000	40°02'N, 126°10'E; 95 m
Kuwol-san, South Hwanghae province	Mountain range (isolated)	10–13 April 1999, many hours per day	38°30'N, 125°16'E; 110–955 m
Moran-bong Park, Pyongyang	Town park on hillock	4–8 hours per day, approx weekly August 2000–November 2003; plus some incidental	39°02'N, 125°45'E; 10–95 m
Munsu-bong Park, Pyongyang	Town park on hillock	2–4 hours one or several mornings per week, September 2001–November 2003; plus some incidental	39°01'N, 125°47'E; 10–82 m
Namei-ri, Mundok Migratory Bird Reserve	Farmland and marsh area on estuary	24 October 2004	39°34'N, 125°29'E; sea level
Nyungin-am, Myohyangsan	Valley in rugged mountains	occasional one or several-day visits various months 1999–2003	40°02'N, 126°15'E; 700–1,200 m
Panmunjom, Kaesong city (not, however, urban)	Border post, plains	midday visit 13 July 2003	37°58'N, 126°46'E; low plains
Piro-bong, Myohyang-san	Peak in rugged mountains	occasional one or several-day visits various months 2002–03	40°01'N, 126°20'E; 1,900–1,909 m
Ryanggyo Reservoir, South Pyongan province	Reservoir in lowlands	many brief roadside stops in 2002–03, some in 2001, 2004	39°22'N, 125°41'E; 100 m
Ryonggang hot springs, South Pyongan province	Resort near coast	overnight 30–31 October 2004	38°54'N, 125°13'E^; sea level
Ryongro-ri, Mundok Migratory Bird Reserve	Farmland and marsh on estuary	3 April 2003; 25 March, 23, 27–28 October 2004	39°34'N, 125°28'E; sea level

Sinchon, South Hwanghae province	Town amidst agricultural lowlands	midday visits on 4 November 2001; 9 September 2002; 17 November 2002	38°21'N, 125°29'E; low plains
Sogam dam, South Pyongan province	Farmland near large reservoir	incidental observations from car; reservoir not visited	39°17'N, 125°42'E; 60 m
Soho-ri, Mundok Migratory Bird Reserve	Farmland and marsh area on estuary	2 April 2003; 25 March, 22 October 2004	39°31'N, 125°24'E; sea level
Taedong-gang, central Pyongyang (including Rungra-do islet)	Urban large river, including flanking town parks	2–4 hours one to several mornings per week; plus some incidental	39°01'N, 125°45'E; 10 m
Wonman-bong, Myohyangsan	Peak in rugged mountains	occasional one or several-day visits various months 2001–03	40°01'N, 126°19'E; 1,600–1,825 m

¹ Does not include sites with no records of the species covered here.

² I made observations on 7 April–3 May 1999, 18 July–2 October 2000, 26 October 2000–3 February 2001, 24 February–18 March 2001, 12 May–15 June 2001, 21 July–17 August 2001, 15 September–16 December 2001, 31 January–1 March 2002, 31 March–4 May 2002, 18 May–13 July 2002, 18 August–12 October 2002, 20 October 2002–31 January 2003, 12 March–26 July 2003, and 31 August–28 November 2003. R. J. Tizard did so on 22 September–24 November 2001 and 3 April–4 June 2002.

³ Taken from the 1: 200,000 Sovetskaia Armiia Generalnyi shtab map series prepared in the 1970s, except those marked^ which are taken from Tomek (2002).

⁴ Latitude differs significantly from the 39°13'N given by Tomek (2002: 205). Because Tomek's other coordinates do not differ by an equivalent amount (hence do not reflect use of a different datum), this is assumed to be in error. This may explain her erroneous location of it as within Greater Pyongyang, whereas it in fact lies in South Pyongan province (as mapped by Fiebig 1993).

information must exist or at least have been amassed within the country, but neither Tomek nor I found much. The present collation treats the 28 species recorded for which Tomek traced fewer than six 'records', arbitrarily treating information from one site in one calendar year as one record, and that from a given site in multiple years as two records, and the 13 and eight additional species for which Tomek (1999, 2002) traced respectively no or only a single dated record post-1975. Some totals from Tomek have been amended by reference to primary sources, as noted in the species accounts below. Observations of species previously unrecorded for DPRK were covered by Duckworth (2004), and the status and seasonality of all other species will be dealt with elsewhere, where survey sites and effort will also be detailed. In addition, Scaly-sided Merganser *Mergus squamatus*, meeting criteria for inclusion here, was covered by Duckworth & Kim Chol (2005).

Observations were made between April 1999 and November 2004, the intensity increasing until 2003 (number of days with at least several hours observation: 14 in 1999; 60 in 2000; 137 plus two from R. J. Tizard in 2001; 219 plus 13 in 2002; 247 in 2003; and 52 in 2004). In Pyongyang observations covered all weeks of the year, and in Hyangsan most, excepting some of January and August and most of February, but coverage elsewhere, including Myohyang, was irregular. Birds were observed

with binoculars and, where appropriate, a telescope. Because of the lack of accessible extant bird specimens from DPRK and because many written sources on the country's birds contain significant inconsistencies and errors (see Tomek 1999, 2002), it seems essential to take the highest standards for DPRK sight records: the baseline understanding of the country's avifauna is still being developed and such records form an undesirably large proportion of it. Under current circumstances, difficulties of employing the superior alternatives of collection, trapping and photography seem almost insurmountable. Hence, square brackets are used here to indicate where specimen or at least photographic verification is particularly desirable. Systematics and nomenclature follow Inskipp *et al.* (1996). Spelling of Korean place names follows Tomek (1999, 2002) for sites included by her. Status comparisons are drawn extensively with well-watched Beidaihe, north-east China (e.g. Williams 2000), which at 39°47'N, 119°27'E, is at similar latitude to the survey sites, because this has the best-published recent detailed account of avifauna for any region close to DPRK. The following abbreviations are used: AMNH = American Museum of Natural History, New York; DPRK = Democratic People's Republic of Korea; MBR = migratory bird reserve; MCZ = Museum of Comparative Zoology, Cambridge, Massachusetts; NHM = The Natural History Museum, Tring (formerly BMNH); and USNM = United States National Museum, Washington DC.

BAIKAL TEAL *Anas formosa*

PYONGYANG: Taedong: single males, 23 February 2002 and 19–20 and 26 March 2004. *HYANGSAN*: male, Chongchon River, 30 March 2003. *OTHER*: Anju bridge: 100, 12 November, 12, 14 November 2003; 5+, 20 March, three, 22 March 2004. *Ryanggyo Reservoir*: 29, 31 October, 4+, 5 November 2002. *Mundok MBR*: Dongrim-ri: one, 25 March 2004. Soho-ri: two, 25 March 2004.

Suitable habitat was rarely visited and some may have been overlooked among Common Teals *A. crecca*, especially in autumn. Tomek (1999) traced nine localities, some with multiple dates, with the only post-1958 record in 1988 (Fiebig 1993). Additionally, NHM holds a specimen from Pyongyang collected on 31 March 1904 (R. Prŷs-Jones *in litt.* 2005). Two others attributed to Pyongyang, from c.1891, by BirdLife International (2001), came from C. W. Campbell (see Campbell 1892) and are labelled merely 'Korea'; a field label on one dates it as 15 November (R. Prŷs-Jones *in litt.* 2005, Shih-Wei Chang *in litt.* 2006, Y. Fujii *in litt.* 2006). Past DPRK records fell during 23 September–11 November, 14 December and 1–31 March (Tomek 1999), dates similar to the present records except the autumn arrival. Baikal Teal is presumably considerably more common in DPRK than hitherto recorded, especially as southern Korea supports a very high proportion of the world population (BirdLife International 2001), with more than 400,000 individuals present in recent winters (Bocharnikov & Gluschenko 2003, Moores 2005).

YELLOW-LEGGED BUTTONQUAIL *Turnix tanki*

HYANGSAN: one flushed from a half-acre bean field within a hotel garden plantation, 7 September 2002.

Little suitable habitat could be checked, hindering assessment of real status. Tomek (1999) traced only eight records, but omitted some information from Austin (1948): records at Anju on 10 September 1935 and 15 June 1936, and from Paekdusan in August, no year given. The most recent dated record is from 1959. Previous records include three in September (all from South Pyongan province: Austin 1948). Equally, Austin (1948) considered it uncommon, and Gore & Won Pyong-Oh (1971) traced few records from southern Korea, where it is now described as 'a scarce and skulking migrant' (Moores & Moores 2005).

GREY-CAPPED PYGMY WOODPECKER *Dendrocopos canicapillus*

HYANGSAN: singles, presumably the same bird, in small nearly mature pine *Pinus koraiensis* plantations on the edge of the town on [8, 14], 15 November 2002 and 26 January 2003.

There being no obvious reason why this woodpecker should be systematically overlooked, it must be genuinely extremely rare at the survey sites. Yet there are previous records from c.12 sites across DPRK, including outer Pyongyang, mostly pre-1950 with the most recent dated record being 7 February 1970 (Tomek 1999). Orii collected six at four Korean sites, mostly in the north, in 1929–30, against ten Japanese Pygmy Woodpeckers *D. kizuki* (Yamashina 1932), which are nowadays common, even abundant, in Korea (Tomek 1999, Lee *et al.* 2000; N. Moores *in litt.* 2003, own data). Similarly, in southern Korea, *D. canicapillus* is now considered scarce and is primarily found in old-growth broadleaf forest (N. Moores *in litt.* 2005), whereas previously it was more common. Jouy collected nine in and around Seoul in June–October 1883, but only two *D. kizuki* (Clark 1910); Campbell (1892) shot three in Seoul, and no *D. kizuki*. Austin (1948) presented a remarkable picture by today's standards: 'a not uncommon summer resident; a few winter in the central and southern provinces', based on dozens of records, particularly from Kyonggi province (which surrounds metropolitan Seoul). He personally 'encountered it only... just south of Suwon... first appeared 6 April... by the end of the month had become fairly common'. Yet he considered *D. kizuki* 'an uncommon resident in... central and southern... Korea', tracing fewer than half as many records as for *D. canicapillus*, suggesting a sight record might instead be a misidentified *D. canicapillus*, and himself seeing only one, 'during a marked flight of other woodpeckers, in which [*D.*] *canicapillus* was the most abundant species'. Austin lodged nine skins of *D. canicapillus* from Suwon in April 1946 at MCZ, and A. Pirie (*in litt.* 2005) has confirmed the identification. Similarly, Wolfe (1950) called it a 'not uncommon summer resident' in Kyonggi and western Kangwon provinces, arriving in early April. He did not record *D. kizuki*, but his sole small woodpecker held at USNM is correctly identified, as *D. c. doerriesi* (J. Dean *in litt.* 2005).

Macfarlane (1963) found *D. canicapillus* at four different sites around Seoul and in adjacent provinces, but apparently recorded no *D. kizuki*. Summing these records and their own unpublished observations, Gore & Won Pyong-Oh (1971) described *D. canicapillus* as 'uncommon', and alluded to many summer records. By contrast, M. P. Anderson's 1905–06 more geographically extensive collection from south and central Korea in NHM (see Anderson 1907) contains only one *D. canicapillus* (and three *D. kizuki*) (M. P. Adams *in litt.* 2004), and Bergman (1935) did not list the species for the Chuul Valley (41°23'N, 129°30'E), North Hamgyong province, despite listing five other woodpeckers, including *D. kizuki*; in his extensive travels in northern Korea (see Bergman 1938), he collected 12 of these and no *D. canicapillus* (P. G. P. Ericson *in litt.* 2003). These authors do not suggest former great abundance of Grey-capped Pygmy Woodpecker in Korea and it seems possible that the Seoul and Kyonggi area was formerly particularly suitable for it, influencing perceptions of those who spent most of their time there (Jouy, Campbell, Austin, Wolfe and Macfarlane); specimen evidence from four of these authors rejects the unlikely alternative, early collective misidentification of small woodpeckers. Because records came from eight (of 11) provinces in DPRK and five (of the seven) additional provinces in southern Korea (using Austin's 1948 boundaries) a significant decline in Korea can be inferred, where it now seems to be, as in the Russian Far East (Mikhailov & Shibnev 1998), a rare bird. The suggestion it was migratory (Austin 1948, Wolfe 1950) was not supported by Gore & Won Pyong-Oh (1971) nor by many years' migration studies at Beidaihe and nearby Happy Island (Williams 2000; J. Hornskov *in litt.* 2005), and even in the north of its range it is said to undertake only minor altitudinal movements, rather than migrations (Winkler & Christie 2002). Its DPRK localities share no obvious character of altitude or geographical location, and clarification of its current status is a priority.

EURASIAN EAGLE OWL *Bubo bubo*

[HYANGSAN: one atop a leafless trunk on the forested cliff south of the town at dusk, 20 March 2004. MYOHYANG: a very large owl flew past Nyungin-am crags near dusk, 22 May 2001]. OTHER: Middle Chongchon river, 42 km south of Hyangsan: one on a large cliff at 18.30 h on 20 April 2002.

In respect of the 2001 and 2004 sightings, Blakiston's Fish Owl *Ketupa blakistoni* (predicted to occur in Korea by e.g. BirdLife International 2001) could not be ruled out. Tomek (1999) traced 19 records from most provinces and months, but the only one post-1961 was in outer Pyongyang in 1988–89 (Fiebig 1993). Formerly a 'not uncommon' resident in Korea (Austin 1948), so frequent in the Seoul game-markets that Taczanowski (1888) and Campbell (1892) both called it common. Easy to overlook in general surveys (see Wolfe 1950), but whether this alone explains why recent DPRK records are so few is unclear; the species seems to have decreased in southern Korea, where it is now uncommon and localised (N. Moores *in litt.* 2005). Myohyang appears superficially prime habitat, but this owl has a diagnostic

territorial call given (in Europe and, apparently, in Korea) almost all year (Cramp 1985; N. Moores *in litt.* 2006) and is not confusable with any sounds heard on the many nights in Myohyang's forest. The species is reportedly extremely sensitive to human presence near the nest (Tucker & Heath 1994) and activity (mainly collection of plants) is intense throughout Myohyang in May–June. However, this seems unlikely to have driven it away, because it persists in the much smaller Ryongaksan (a renowned mountaineering park: Pang Hwan Ju 1987: 16) in outer Pyongyang (Fiebig 1993). Though largely resident, winter nomadism is considerable in Asian Russia (Cramp 1985) and may explain the above records of silent birds.

LITTLE OWL *Athene noctua*

HYANGSAN: singles heard, [19 September 2002 (22.30 h), 23–24 October (05.50 h and 04.30 h), 25 November 2003 (06h50)], and 4 November 2004 (15.40 h). **OTHER:** *Middle Chongchon River*, road 42 km south of Hyangsan: one on a post by a large rocky precipice at c.15.30 h, 27 January 2001. *Mundok MBR:* Donggrim-ri: two singles on house chimneys and poles amidst paddy stubble, by day, 21 October 2004. *Anju:* singles seen, with much calling at dawn and dusk, 23–24 and 27 October 2004.

The paucity of records is noteworthy, because at least in the West Palearctic it is readily seen, being active day and night (Beaman & Madge 1998), and calls nearly all year (König *et al.* 1999). Apparently genuinely scarce, rather than simply more nocturnal and less vocal than in Europe, given the behaviour of the Mundok and Anju birds in autumn 2004. There was probably an influx in autumn 2004, because in southern Korea (where Gore & Won Pyong-Oh 1971 considered it a rare winter visitor based on three records, see Fennell 1960), it is still recorded only rarely, but there were four between 4 September and 13 October 2004 (Moores *in press*). The 12 previous DPRK records with locality come only from South Pyongan province (including Anju in November 1931) and southward; three are from Pyongyang or its outskirts, the last in 1959. Records are from all months except January, May, September and December, the most recent in 1962 (Tomek 1999). Another subsequent record is of a daytime single, in late July 2005, on a 6-m roadside post ('Seoul 70 km') just north of the Military Demarcation Line (J. Hammar *in litt.* 2005). Little Owl's current status is therefore enigmatic, perhaps a scarce resident with irregular autumn arrivals. Apparently resident at Beidaihe (Williams 2000; J. Hornskov *in litt.* 2005).

LONG-EARED OWL *Asio otus*

PYONGYANG: *Munsu:* one in a clump of pines *Pinus densiflora* at 08.00 h, 21 November 2002.

This bird, presumably a transient attempting to roost, was readily flushed. Most autumn records at Beidaihe are from day-roosts (Williams *et al.* 1992), but the Pyongyang and Hyangsan survey sites sustained such heavy human use as to deter roosting birds. However, could well have been overlooked in Myohyang, as is easily

missed on both breeding and winter grounds (Lack 1986, Gibbons *et al.* 1993). Tomek (1999) traced *c.* 12 records, the last (apart from a generalised statement of winter occurrence) from 1958, including several in autumn. Her unqualified citation of a 1987 record relates to pellets, the identification marked '?' in Głowaciński *et al.* (1989: 471), making the April date meaningless. The scarcity of recent records might simply reflect birds being overlooked; but it could indicate a decline, because there are similarly few recent, but relatively many historical, records in southern Korea (Park Jin-Young 2002), and numbers passing through Beidaihe appear to have decreased (Williams & Dorner 1991, Williams *et al.* 1992).

SHORT-EARED OWL *Asio flammeus*

[OTHER: *Sogam dam*: one, 6 January 2003. 8 km north of *Ryanggyo Reservoir*: one, 6 January 2003. 3 km south of *Anju Bridge*: one, 21 January 2003]. All seen from a car at dusk around extensive stubble fields, recalling Wolfe's (1950) observations in southern Korea. Clearly *Asio* sp., none was seen well enough to eliminate Long-eared Owl, though this is most unlikely in such habitat.

The route between Pyongyang and Hyangsan crosses many small plains which, judging from the many Common Kestrels *Falco tinnunculus* and Common Buzzards *Buteo buteo*, support ample food for this conspicuous owl. The journey was frequently made by day and around dusk (this owl's peak activity periods; Beaman & Madge 1998), so it must be genuinely scarce in the region. Tomek (1999) traced only seven records, all between late September and April (but none in January), reflecting Taczanowski's (1888) view that only a few are seen in a typical winter. This contrasts with Gore & Won Pyong-Oh's (1971) assessment for southern Korea of a 'common winter visitor to . . . open country in the lowlands and foothills', though now it is a decreasing, uncommon, localised winter visitor and passage migrant (N. Moores *in litt.* 2005).

SOLITARY SNIPE *Gallinago solitaria*

MYOHYANG: one in rocky, well-vegetated, sections of the Hyangam-chon, 24 March and 8 April 2003.

Found only by clambering in the streambed, which was done on only two other dates within its presumed period of occurrence. Thus, the species may have been greatly overlooked, as perhaps it is across Korea: Tomek (1999) traced just eight records, only one (1978) post-1969; and only one regularly occupied site is known in southern Korea (N. Moores *in litt.* 2005). Unlike other Korean snipes, it inhabits rocky streams and mountain ditches (Fennell & King 1964), though the 1978 record was of a bird 'on the shore of a small lake' (Bocheński *et al.* 1981), and Myohyang may be prime habitat. DPRK records fall between 11 October and 23 April, implying that it is a non-breeding visitor; equally, N. Moores (*in litt.* 2005) knows of no summer records for southern Korea.

GREY-HEADED LAPWING *Vanellus cinereus*

HYANGSAN: one near the Chongchon River, 28 April 2003.

The only previous DPRK record may be from South Hamgyong province on 16 September 1989 (Fiebig 1993), though Tomek (1999) traced an additional, unreferenced, allusion to occurrence in DPRK. Very scarce in southern Korea (Gore & Won Pyong-Oh 1971, Park Jin-Young 2002, Moores in press). Surprisingly few DPRK records, given its abundance at Beidaihe (Williams 1986, 2000), but the species is sufficiently conspicuous that it must be genuinely rare in the survey sites.

ORIENTAL PRATINCOLE *Glareola maldivarum*

PYONGYANG: *Moran*: three flew low north-east, 30 April 2002.

Were it at all regular at the survey sites, more flyovers would surely have been noted. Tomek (1999) traced just one previous record, from Anju on 7 or 17 October 1931. Gore & Won Pyong-Oh (1971) considered it a mere vagrant to southern Korea, but though undoubtedly scarce (Lee *et al.* 2000), it is increasing and may now breed (Moores & Moores 2005), reflecting recent trends in Japan (Brazil 1991). My record falls within the peak passage period through southern Korea (N. Moores *in litt.* 2005) and Beidaihe, where it is much more numerous (mid April–early May: Williams *et al.* 1986, Williams 1986, 2000).

SLATY-BACKED GULL *Larus schistisagus*

OTHER: *Mundok MBR*: Dongrim-ri: two on tidal flats, 2 April 2003.

Tomek (1999) traced records from only four sites. In addition, already known from near Mundok, in a sea bay west of Anju, on 25 November 1989 (Stepanyan 1998). One record, an adult on the Taedong River, near the mouth of the Sunhwa River, in outer (west) Pyongyang on 16 April 1987 (Głowaciński *et al.* 1989), is open to doubt: the original publication does not discuss variation within ‘Herring Gull *L. argentatus*’, notably that a dark-backed, pink-legged, taxon (not Slaty-backed Gull) visits Pyongyang in March–April (pers. obs.). Moreover, Burger & Gochfeld (1996) did not mention inland occurrence, in Japan it is ‘rare on inland waters’ (Brazil 1991) and N. Moores (*in litt.* 2005) knows of no such records in southern Korea. Occurrence in Pyongyang would thus be unexpected, and Malling Olsen & Larsson (2004) must have mapped all inland Korea in the species’ winter range in error. There is only one previous spring record from DPRK, on 11 April 1996, but the species is probably greatly under-recorded, as suggested by Tomek (1999). Austin (1948) listed no records for Korea, and Gore & Won Pyong-Oh (1971) called it a regular, scarce, winter visitor, but in southern Korea it is now ‘fairly numerous in October–March’ (Moores & Moores 2005). Whether it has genuinely increased or was simply overlooked is unknown, given the difficulties in gull identification; Brazil (1991) left the causes open of a similar trend in observed numbers in Japan, whilst Carey *et al.* (2001) attributed an upsurge in numbers recorded in Hong Kong to reflect nothing more than evolving identification skills.

BLACK-LEGGED KITTIWAKE *Rissa tridactyla*

PYONGYANG: Taedong: low-flying adult, not on active passage, 10 October 2002.
HYANGSAN: low-flying adult, 4 November 2004, eventually landed on the Chongchon River; seemed exhausted.

Tomek (1999) traced five previous records, from three east-coast sites, between 25 September and 11 December, with one on 11 February (her '18 September 1989' was actually 18 October 1989; Fiebig 1993). Gore & Won Pyong-Oh (1971) listed no inland records from southern Korea, and N. Moores (*in litt.* 2005) knows of none, but these records lend tentative support to his suggestion (Moores *in press*) that birds cross Korea overland. In most of its range the species is exceptional inland except after storms (Cramp & Simmons 1983), but both my records were during calm conditions. Presumably much overlooked off the coast because in southern Korea it is 'a fairly common migrant and winter visitor' (Moores & Moores 2005).

WHITE-WINGED TERN *Chlidonias leucopterus*

[*HYANGSAN*: one, 3 October 2002. *OTHER*: Anju bridge: juvenile foraging, 19–20 September 2002.] Clearly *Chlidonias* sp., neither was quite confirmed to species; there is only one record of Whiskered Tern *C. hybridus* in DPRK (Duckworth 2004).

Tomek (1999) traced six DPRK records, all in the 1980s, from two coastal and one inland site, spanning 6 July–3 October; her deduction that July and August records suggest breeding in DPRK ignores that 'countless' birds pass Beidaihe (where the species does not breed) by late June (Williams *et al.* 1992). Though Austin (1948) mentioned only one record, it is better considered rare or uncommon in southern Korea (Park Jin-Young 2002, Moores & Moores 2005), with recent records mostly in May–September (N. Moores *in litt.* 2005).

MARbled MURRELET *Brachyramphus marmoratus*

HYANGSAN: one on the Chongchon River, 14 May 2002, in partial breeding plumage, photographed by R. J. Tizard.

This individual was of *B. m. perdix*, now more generally regarded as a separate species (e.g. Friesen *et al.* 1996), and 'one of the rarest and most poorly understood alcids in Asia' (Nelson *et al.* 2002). The only previous records are a specimen (also *B. m. perdix*) lacking any data, and one from the Taedong River (no precise site) dated 13 June 1933 (Austin 1948, Tomek 1999). Though recorded almost annually in southern Korea, it is only noted in tiny numbers (Fennell & King 1963b, Park Jin-Young 2002, Moores & Moores 2005). Marbled Murrelet breeds inland, in old-growth forests (Ralph *et al.* 1995), and it might seem possible this bird was heading to Korean forest to breed, given the unsupported reference by Austin & Kuroda (1953: 457) to 'the Korean [breeding] population', but the nearest known breeding areas are in the Russian Far East (Konyukhov & Kitaysky 1995). However, given the great difficulties in finding this species (Nelson *et al.* 1997) Korean breeding cannot be excluded.

ORIENTAL HONEY-BUZZARD *Pernis ptilorhyncus*

PYONGYANG: *Munsu*: singles south, 9 October 2001 and 22 September 2002. [*Taedong*: one west, 23 September 2001.] *HYANGSAN*: one, not on active migration, 4 May 2003; 1–2 south-west, 3 October 2003. *MYOHYANG*: *Wonman*: singles, [9 and] 12 June 2002; 21 south-east, 6 May 2003. *Hyangam-chon*: one, not on active migration, 8 May 2003.

Western Honey-buzzard *P. apivorus* was not objectively eliminated from these sightings; it might conceivably occur as a vagrant to north-east Asia. Few unidentified large raptors were seen, hence this honey-buzzard must be genuinely uncommon at the survey sites. Nonetheless, Tomek's (1999) classification as a 'very rare passage migrant' is too strong; in southern Korea it is a locally common passage migrant (e.g. Moores in press). That Tomek (1999) traced only three passage records (and overlooked another: Fiebig 1993), including outer Pyongyang, probably reflects the limited efforts to detect passage raptors in DPRK. A satellite-tagged Japanese breeder migrated over the entire latitudinal span of the Korean peninsula in early to mid May 2004, and a large such migration was hypothesised (Higuchi *et al.* 2005). A single circling near Wonman, Myohyang, on 11 June 1983 (Tomek 1985) coupled with presence there in mid-June 2002 might suggest local breeding, but the conspicuous aerial display was given by neither bird (T. Tomek *in litt.* 2005), and presumed non-breeders of the allied Western Honey-buzzard migrate into early July (Cramp & Simmons 1979); first-year *P. ptilorhyncus* may even oversummer in tropical South-East Asia (Higuchi *et al.* 2005) and it seems that few young birds return as far as the breeding areas, at least in Japan (Iseki 2004). The timing of past (12–29 September: Tomek 1999) and present passage records resembles that at Beidaihe, where in spring 1985 large numbers passed in late April–late May (Williams 1986, 2000); autumn passage in 1987 peaked very strongly in late September, with otherwise few between mid September and the first third of October (Duff *et al.* 2000).

CINEREOUS VULTURE *Aegypius monachus*

HYANGSAN: eight circled overhead then headed up the *Hyangam-chon*, *MYOHYANG*, 8 November 2002.

Tomek (1999) traced just one recent record, a single near Pyongyang on 13 April 1989 (Fiebig 1993); also, three near Haeju, South Hwanghae province, on 30 November 1989 (Stepanyan 1998). Tomek (1999) gave three other dated records: 8 August 1929 (Yamashina 1941, 873; omitted, presumably accidentally, from Yamashina 1932, the original expedition account, discounting the remote possibility this bird was collected by someone other than Orii), 25 November 1928 and 15 December 1918 (not 1818; see Austin 1948). The past August record is echoed by recent summer records from southern Korea (e.g. Moores in press). Cinereous Vulture is doubtless more frequent than records indicate: in March 2003 Pyongyang Central Zoo held five birds, all reportedly locally taken, and 1,000–1,200 winter in

southern Korea, many in or near the Military Demarcation Line (Lee *et al.* 2004): presumably, all these overfly DPRK.

EURASIAN MARSH HARRIER *Circus aeruginosus*

[**PYONGYANG:** *Moran:* one south, 8 September 2002. *OTHER:* *Anju bridge:* singles foraging, 25 May 2002 and 3 September 2003].

In southern Korea Marsh Harrier visits mainly coastal marshes, being only occasional inland (Gore & Won Pyong-Oh 1971): the survey sites lacked prime habitat, even taking into account wider habitat usage elsewhere in its range (Ferguson-Lees & Christie 2001). At best it is scarce on passage. Tomek (1999) traced only a few previous DPRK records, none recent: one specimen, Ryongampho, 21 April 1929 (Yamashina 1932); 8 July 1897; and three specimens, Manpo, 13 September–12 October 1929 (Yamashina 1932), but she (and Austin 1948) overlooked one from 'Nojido' (untraced; east of Paekdu-san), 24 August 1929 (Yamashina 1932). Some dates suggest local breeding, though this is unknown in southern Korea (N. Moores *in litt.* 2005). Formerly 'uncommon' (Austin 1948), it is now scarce in southern Korea (e.g. Moores *in press*), and has decreased as have wintering populations in Thailand (Round & Gardner *in press*) and, probably, Hong Kong (Carey *et al.* 2001), and passage numbers through Beidaihe (Williams & Dörner 1991). Hence, clarification of its true status in DPRK is desirable, and these sightings, none of adult males, are considered provisional.

RED-NECKED GREBE *Podiceps grisegena*

HYANGSAN: one on the Chongchon River, 5 October 2001.

Tomek (1999) traced only five records (three sites), including one from Hyangsan (not Myohyang; Fiebig 1993), 10–12 May 1990; only one was in autumn (1 October; Fiebig 1993). Additionally, several were at Samil-pho, Kangwon province, November 1989 (Stepanyan 1998). Though uncommon in southern Korea (Austin 1948), it can be locally numerous on the coast with, e.g., over 100 seen in one day on the east coast near Pohang (c.35°55'N, 129°25'E) in March 2005 (Fennell & King 1963b, Macfarlane 1963; N. Moores *in litt.* 2005), but regular occurrence at the (inland) survey sites would be surprising.

PURPLE HERON *Ardea purpurea*

PYONGYANG: [*Munsu:* one flew past, 2 May 2002.] *Taedong:* one north, 30 April 2002, with a Grey Heron *A. cinerea*; [six herons north, 19 April 2003, were possibly this species].

Various migrating large herons were too high to identify. Tomek (1999) traced six previous pre-1932 records and one in 1985, whilst Gore & Won Pyong-Oh (1971) listed only 15 Korean records; it is still considered scarce in southern Korea (Lee *et al.* 2000; N. Moores *in litt.* 2005).

INTERMEDIATE EGRET *Mesophoyx intermedia*

PYONGYANG: [Moran: singles over, with Great Egrets *Casmerodius albus*, 31 August 2002 and 31 August 2003.] Taedong: one over, with Great Egrets, 3 May 2003. OTHER: Anju bridge: singles, 19 September 2002 and 3 September 2003. Ryanggyo Reservoir: three, 26 April 2003, and one with other egrets, 22 September 2003. Sinchon: seven, 9 September 2002. Panmunjom: 10+, 13 July 2003.

Especially given comments on egret identification by Tomek (1999), who accepted only two records from DPRK (specimens, 26 May 1970 and 3 July 1965), Intermediate Egrets were identified only when seen well, usually in direct comparison with Great Egret (probably mostly or all *C. a. modestus*) and/or Little Egret *Egretta garzetta*, showing a shorter, thicker bill than Great Egret, and a longer neck than Cattle Egret *Bubulcus ibis*. Most egrets were seen in flight or from a moving car, hence many were not identified and Intermediate Egret was probably much overlooked. It is clearly regular on passage through the general survey area (extreme dates, 26 April–3 May and 31 August–22 September). Despite Tomek's (1999) caution (partly because the Great Egrets predominating in Korea, *C. a. modestus*, are markedly smaller than *C. a. albus*, likely to be more familiar to European observers), at least Fiebig's (1993) observations seem correct (some were mixed with other egrets); his seven records extend autumn presence until 19 October. The 10+, possibly many more, birds in breeding plumage (and bill pattern) at Panmunjom in midsummer, coupled with many seen there the following summer (late July 2005; J. Hammar *in litt.* 2005), and Fiebig's (1993) eight South Pyongan province birds on 29 June 1990, support Tomek's (1999) proposition of DPRK breeding. This has been known in southern Korea since the 1960s (Gore & Won Pyong-Oh 1971); indeed, Kuroda (1918) described it as a common summer resident in central Korea, a statement dismissed by Austin (1948), who considered it 'of uncertain status . . . later observations may show localized breeding colonies in Korea'. Common occurrence in DPRK is expected: small numbers summer in the coastal Russian Far East (Nazarov *et al.* 2001), and it is common in southern Korea, particularly in rice fields, with birds almost all gone by September; a very few linger into early November (N. Moores *in litt.* 2004). Birds also disappear from Beidaihe by late September (Duff *et al.* 2000). In this context, Stepanyan's (1998) reported groups of two at two sites in the Haeju area, South Hwanghae province, on 30 November–1 December 1989 are very late, and it is noteworthy that he did not list Great Egret (scarce but regular in southern DPRK throughout the winter; Tomek 1999). There remains a clear need for careful documentation of Intermediate Egret records at any season in DPRK.

BLACK-CROWNED NIGHT HERON *Nycticorax nycticorax*

PYONGYANG: Moran: first-summer, 13 April 2002, second-summer, 10 May 2003. Munsu: singles, 21 September 2001 (adult), 14–15 April 2002 (first-summer); three, 4 May 2002; singles, 29 December 2002 (first-winter), 2 May, 9, [12] September and 20 October 2003 (first-winter). Taedong: singles, 10 October 2002 (first-

winter), 25 July, [11 September], 27 September, 2 November 2003 (adult). *Other*: one over the Museum of the Three Revolutions (39°05'N, 125°45'E), 4 May 2002. *OTHER*: *Ryonggang hot springs*: at least 27 at dusk, 30 October 2004; birds heard the following morning before dawn.

An even more recent record is of three leaving a day-roost just north of Kaesong city, flying over the main Pyongyang road (c.38°00'N, 126°33'E) in late July 2005 (J. Hammar *in litt.* 2005). Tracing only two previous records (Kyongsong, North Hamgyong province, 1925 [Austin 1948]; Anju, 6 March 1931), Tomek (1999) classed Black-crowned Night Heron as a vagrant. This is such a distinctive species that it must genuinely have increased in DPRK since the relatively high levels of observation in the 1980s, when none was found. It is mainly crepuscular, roosting by day in tree-crowns whence, given the heavy human activity in Pyongyang parks, it was readily flushed. The species was probably not, therefore, greatly overlooked. Expansion into DPRK continues the southern Korean trend. Kuroda (1918) commented how 'remarkable that *Nycticorax nycticorax* has never yet been collected in the peninsula of Korea but has been obtained on the island of Quelpart' (=Cheju, c.33°20'N). There were three records by 1964 (Austin 1948, Fennell 1961, Gore & Won Pyong-Oh 1971) and now it inhabits most riverine areas, having bred since, at latest, the 1980s (Park Jin-Young 2002); some colonies number hundreds (Yu Jae-Pyoung & Hahm Kyu-Hwang 1997), and it is considered common (Lee *et al.* 2000). Won Pyong Oh (1995) discovered several pairs (total counts of 19–43 birds, with juveniles) breeding on Yu-do islet at the mouth of the Han River, just south of the Military Demarcation Line, in July 1994. It has also colonised Beidaihe: in spring 1985, only three were recorded (Williams 1986) and it was not seen in autumns 1986–1990 (Williams 2000), but the species is now a common breeding summer visitor (J. Hornskov *in litt.* 2005).

Currently mainly a passage migrant in Pyongyang (extreme dates 13 April–10 May, 9 September–2 November), there were midsummer (25 July) and midwinter (29 December) records. At Beidaihe, most leave by early October (J. Hornskov *in litt.* 2005). Similarly, most have departed southern Korea by mid October, but the species also winters in small numbers, including in the coldest lowland parts (N. Moores *in litt.* 2005). Summer records do not necessarily indicate local breeding: in Europe, post-breeding dispersal in July–August takes juveniles in all directions, mostly north and west, for up to 800 km, with one recovery 1,200 km distant; this dispersal merges into true autumn migration which runs through September–October. Not all migrate and there are occasional winter records in Europe even north of the breeding range. There is a tendency for returning spring migrants to overshoot; most such birds in Britain are in March–May (Fasola & Hafner 1997). A similar pattern could explain the Pyongyang records, the spring records being rather later, reflecting the harsher early spring climate. Continuing increase in DPRK and colonisation of Pyongyang (it adapts well to human settlements; Cramp & Simmons 1977) seems likely, especially as small numbers summer in the coastal Russian Far East (Nazarov *et al.* 2001).

RED-THROATED LOON *Gavia stellata*

HYANGSAN: singles, Chongchon River, 20 May 2002 (non-breeding plumage) and 13–17 June 2002 (breeding plumage).

Tomek (1999) traced only five records (from four sites), only one (in 1970) post-1932. Records, presumably on the lower Chongchon, at Anju on 22 May 1931 and 18 June (or 18 November?) 1932 parallel remarkably the 2002 records. In southern Korea, it can be fairly numerous (Macfarlane 1963; N. Moores *in litt.* 2004), making the lack of other recent DPRK records by e.g. Fiebig (1993, who had ready access to the coast) surprising, and Tomek (1999)'s categorisation of it as a vagrant is surely unwarranted.

YELLOW-BILLED LOON *Gavia adamsii*

HYANGSAN: one, in full breeding plumage, Chongchon River, 27–28 May 2003.

The only historical record (Tomek 1999), from Kangwon province on 7 April 1914, has a precise locality of 'Soondal-myon' in Gore & Won Pyong-Oh (1971), who listed it as a southern Korean record, and of 'Juntatsumen, Tsūsen [=Kuum], Kōgen District [=Kangwon]' in Kuroda (1918). Kuum (38°54'N, 127°54'E) is c.50 km north of the Military Demarcation Line, so the collecting locality is presumably well within DPRK. There are also only few records from southern Korea, but potential sites are still only very patchily surveyed (Fennell 1952, Gore & Won Pyong-Oh 1971, Moores *in press*). Recent satellite-tracking of North American breeders suggests that, despite the paucity of records, DPRK supports a significant wintering population: of five individuals marked in summer 2002, two wintered in DPRK's East Sea and one crossed the peninsula to winter in the West Sea (Earnst 2004).

JAPANESE WAXWING *Bombycilla japonica*

PYONGYANG: *Moran*: six, 18 November 2001; 4+, potentially 30, 22 March, eight, 19 April, one, 22 November 2003. *Munsu*: 14, 20 March 2004. *Taedong*: 35, 22 March, 45, 26 March, 15, 28 March, [12, 10 April], 14–29, 15 April, 35, 25 April, one, 18 May 2003; one, 24 February, [13 March] 2004. *Diplomatic Compound*: one, 19 May 2003, [1+, 28 February 2004].

Tomek (2002) categorised this species as a 'very rare winter visitor and passage migrant', tracing only five dated records (from two sites), none post-1962, with a general statement of occurrence in Pyongyang in winter. It is unclear whether the species has increased recently, or was simply overlooked previously. The 2001–04 records number only two in autumn; amongst nine records Austin (1948) listed, eight were from spring with one on 17 January 1916. The species may genuinely be scarce in autumn in Korea, rarely reaching southern Korea before December (Moores *in press*). Traditionally, Bohemian Waxwing *B. garrulus* is thought more common in Korea (Austin 1948, Gore & Won Pyong-Oh 1971) but, apart from an invasion in spring 2004, I saw it only thrice, in spring 2003 (when Japanese was common); equally, N. Moores (*in litt.* 2005) considers this comparison no longer apt

for southern Korea, and at Beidaihe in recent autumns, Japanese Waxwing was also rather the commoner (Williams 2000). In most years, it is scarce at the survey sites, with only four records outside the influxes of 22 March–25 April 2003 and 24 February–20 March 2004 (only the last date in 2003 may be a reliable guide to timing, because I was away before/after the others). It is also an irruptive visitor to Japan (Brazil 1991) and southern Korea (Moores & Moores 2005). The two records bracketed from spring 2004 were of calls, identical to the common piping whistle of Japanese Waxwing, heard from Bohemian Waxwing flocks; this call seems not to be given by Bohemian Waxwing (pers. obs; N. Moores *in litt.* 2004). Mixed flocks, usually with one species much outnumbering the other, were frequent, as in southern Korea (N. Moores *in litt.* 2005) and Japan (Brazil 1991).

BROWN-HEADED THRUSH *Turdus chrysolaus*

[*PYONGYANG*: *Moran*: singles showing some characters of the species, 2 May 1999 and 18 October 2003. *Taedong*: one showing some characters of the species, in subsong, 3 May 1999.]

Though resembling Brown-headed Thrush, all had at least one character not shown by that species at NHM (*c.*70 Brown-headed Thrush specimens examined, compared with *c.*50 Eyebrowed Thrushes *T. obscurus* from China and 28 from Siberia, with superficial examination (for strength of supercilium) of all *c.*160 others in the collection). Pale *T. pallidus* and Eyebrowed Thrushes also occurred on passage, and few were seen well: other such anomalous birds, and even Brown-headed Thrushes, may well have been overlooked.

That on 2 May 1999 had uniform slate brown upperparts, smeary pale brown throat and breast, a strong chestnut malar stripe, a slight hint of a supercilium, rich orange flanks, pale pink legs and yellow bill. Hence, it superficially resembled a female Brown-headed Thrush, except that 'slate brown' is not a good description of the upperparts of any NHM female-type of either species. Whilst it might have been a flawed assessment, more likely is that the bird was a young male (it was in subsong) and this colour would have strengthened with age. The throat and breast pattern, including the dark malar (shown by *c.*30–50% of NHM female-type specimens of Brown-headed Thrush, and in general more prominent on Eyebrowed Thrush) apparently eliminates Grey-backed Thrush *T. hortulorum* (a common breeder in Moran; own data), whilst the only weak head striping would seem to rule out Eyebrowed Thrush. Moreover, no NHM specimen of Eyebrowed Thrush has an entirely dark throat and chin, and those with the smallest pale patch there are those with the most slaty throats, and hence not similar to the 1999 bird.

The bird on 3 May 1999 matched a dull male Brown-headed Thrush in almost all features (warm brown head and upperparts, slightly greyer throat with no trace of pale, rich orange flanks and breast, white belly and vent, yellow bill with dark tip, pink legs), but it had a weak white supercilium terminating just behind the eye, and an even weaker pale suffusion from the bill base to below the eye, features suggesting Eyebrowed Thrush, at least in parentage. Many NHM Brown-headed

Thrushes have at least a hint of a supercilium, though neither clean white, nor sharply delimited. However, no adult male type (i.e. with a uniform dark throat) showed any such supercilium. The head stripe features are consistent with Eyebrowed Thrush, but the rest of the plumage is not.

These two resembled Brown-headed Thrush much more than they did Eyebrowed Thrush. Given the lack of any specimen at NHM similar to either in essential features, they must be left unidentified. Moreover, certain specimens at NHM were also hard to identify (e.g. NHM 96.6.1.1965, Okinawa, Japan, 3 April 1892; NHM 1910.5.2.381, Kwang Tung, south China, 8 April 1906; NHM 1909.10.29.17, central Taiwan, April 1908). Finally, a third bird in Pyongyang, on 18 October 2003, was extraordinary: a first-winter (with a prominent greater covert bar), it had a head pattern typical of Eyebrowed Thrush, except that it lacked even a trace of a supercilium. The spot just below and before the eye and submoustachial stripe were both clearly demarcated, bold white. The fulvous-orange flanks were typical of Eyebrowed Thrush, and lacked the richer hue of Brown-headed Thrush. Several NHM Brown-headed Thrushes (e.g. 1918.6.25.158, Fohkien, south China, no date) show limited pale, in one case white, flecking below the eye and/or a pale submoustachial, but none has the bold white markings typical of Eyebrowed Thrush; and no specimen of either species showed this combination of no supercilium with bold white marks below the eye. The closest, 1914.7.16.106 (Shawaishan, Kiangsu, 15 November 1904), had only a limited white submoustachial and a clear supercilium before the eye.

Brown-headed, Eyebrowed and Pale Thrushes are sometimes considered conspecific (e.g. Cheng 1987), and it is unclear whether the anomalous features result from hybridisation or wider intraspecific variation than shown at NHM. Clearly, great care is needed in identifying any suspected Brown-headed Thrush in DPRK. Unfortunately, before checking skins, I supplied the 1999 records (with no identification caveat) to Tomek (2002).

Tomek (2002) traced five previous DPRK records, including outer Pyongyang (4 May 1950) and Myohyang (singles seen 14 June and heard 17 June 1983, in different valleys; Tomek 1985). Tomek (2002) took the Myohyang records, and three on 21–27 May from elsewhere, to imply local breeding, otherwise known only from Japan, Sakhalin and the Kurile Islands (Clement & Hathway 2000). Hence, I searched very hard for breeding-season Brown-headed Thrush in Myohyang, including Tomek's precise valleys of observation, but found only Pale and Grey-backed Thrushes. *Turdus* within Myohyang's forest were difficult to see clearly, and to some people (including me) vocalisations of Brown-headed Thrush closely resemble those of several congeners (e.g. Ueda 1998). It is possible that I overlooked Brown-headed Thrush there in 2000–03, but the species certainly was not common. It is notable that Tomek (1985) found no Pale Thrushes in Myohyang, though this species was numerous in 1999–2003, and was earlier recorded by Fiebig (1995). Therefore, further confirmation is essential before Brown-headed Thrush can be considered a Korean breeder. In southern Korea it was treated as a vagrant

by Gore & Won Pyong-Oh (1971), but it is better considered a 'rare or uncommon migrant' (Park Jin-Young 2002), especially in spring, and indeed falls of dozens, hundreds even, have occurred on southern islands (N. Moores *in litt.* 2004).

NARCISSUS FLYCATCHER *Ficedula narcissina*

OTHER: Kuwol: male, 11 April 1999, near a stream in mixed pine/broadleaf forest (c.200 m altitude).

Even though the rather similar Yellow-rumped Flycatcher *F. zanthopygia* was common in Pyongyang, careful checking makes it unlikely that Narcissus Flycatcher was greatly overlooked at the survey sites; it must be at best scarce. Tomek (2002) traced only four previous records from DPRK: 15 May 1950, 12 May 1961, 12 June 1949, and, from Myohyang, 12 May 1950. Additionally, single males were collected on Yang-do on 17 and 18 May 1953 (Neff 1956, reconfirmed as *F. n. narcissina* by J. Stephenson *in litt.* 2006). These are all much later in spring than the Kuwol record, but a southern Korean specimen is dated comparably: 9 April 1931 (Austin 1948), as are various modern records (N. Moores *in litt.* 2005). The June date might suggest breeding (see Tomek 2002), and there are a few similar records from southern Korea but so far no direct indication of breeding (Park Jin-Young 2002), so it was presumably just a late or disoriented migrant. Although Austin (1948) traced only eight Korean records, it is now considered a scarce migrant in southern Korea, primarily in the extreme south and mainly in spring (Park Jin-Young 2002), with day counts of up to 40 at favoured sites (N. Moores *in litt.* 2003).

JAPANESE ROBIN *Erithacus akahige*

OTHER: Kuwol: two, 11 April, male, 12 April 1999; sites c.6 km apart. Birds foraged in undergrowth and on large rocks beside small streams at c.200 m.

This robin is 'very secretive' (Straw 1953, Brazil 1991), but its song is highly distinctive (Ueda 1998), and hence some silent passage birds, though not breeding-season songsters, could have been overlooked. Only one previous record from DPRK, from Ryonggang province, 4 June 1980 (Tomek 1984, T. Tomek *in litt.* 2005), the date *contra* Tomek (2002) where 1–6 June was given. Tomek (1984) saw the date as suggesting breeding, but there has been no subsequent evidence, and the 1999 dates reflect those of southern Korean passage migrants (Straw 1953, Moores *in press*). It was described as a rare vagrant in southern Korea by Gore & Won Pyong-Oh (1971), but is better considered a scarce migrant with, e.g. four records in 2004 (Moores & Moores 2005).

SIBERIAN RUBYTHROAT *Luscinia calliope*

PYONGYANG: Taedong: one, 28 September, 3+, 5 October, two, 10 October, singles, [14], 19 and 21 October 2003. *MYOHYANG: Wonman–Piro area:* common, 5–6 May

2003; small numbers, 9, 12 June 2002 (song not then known), common, 1–5 July 2002; three, including one juvenile, 28 August 2002.

Clearly a common breeder (several songsters audible from any given spot, May–July) in dense scrub at 1,700–1,909 m in Myohyang, Siberian Rubythroat was seen in autumn 2003 on every visit over several weeks, except one (12 October), to an area of bushes and damp rank growth (not previously checked carefully) on Rungra islet, Pyongyang; I had presumably overlooked it in earlier seasons. Tomek (2002) traced DPRK records from c.18 localities (overlooking Bergman's (1938) from the untraced locality of 'Gekatsuri', South Hamgyong province, in summer 1935), including Myohyang (22 May 1956); only one record (in 1980) was post-1969. She called it a 'rare breeding species and passage migrant'. However, it can be very skulking (Lewington *et al.* 1991) and is easily overlooked if the call is unknown (Brazil 1991); notably, the 1980 record was identified only by characteristics of the nest, the bird being seen so poorly (Tomek 1984). In fact, if Myohyang typifies Korea's northern highlands, it must be an abundant breeder, and, moreover, it is locally common on passage, as in southern Korea (e.g. Moores *in press*). It also seems to be a previously overlooked breeder to the south: Park Jong-Gil (in Park Jin-Young 2002) found territorial males on Sorak mountain (38°10'N, 128°30'E) in June–July 2001. Gore & Won Pyong-Oh (1971) gave passage habitat as 'wherever there is dense cover', but it is evidently quite selective in at least Pyongyang, and modern southern Korean records are predominantly from reeds or long grass with low bushes (N. Moores *in litt.* 2005). Past records span 25 April–18 August and 11–20 October (Tomek 2002), a similar autumn departure to that in 2003, and resembling autumn timing at Beidaihe: mid–late September, peaking in early October, with a few to early November (Duff *et al.* 2000).

BLUETHROAT *Luscinia svecica*

OTHER: Mundok MBR: Namei-ri: one in coastal reed swamp, 24 October 2004.

Passage Bluethroats seek well-vegetated damp areas, to which I had little access. Could well be much commoner than the sole previous record traced by Tomek (2002) implies, and her conclusion that migrating Bluethroats bypass the Korean peninsula is premature. Though Austin (1948) traced only one record in southern Korea, Fennell & King (1964), by appropriate searching found Bluethroats regularly around Seoul, and today in southern Korea it is considered 'scarce or uncommon' (Park Jin-Young 2002). The above date fits timing at Beidaihe (late September–late October, with most passing by mid October; Duff *et al.* 2000), and Fennell & King's (1964) dates (24 October–10 November).

CHESTNUT-CHEEKED STARLING *Sturnus philippensis*

HYANGSAN: male in riverside willows Salix sp., 26 May 2002.

The only previous dated locality record in DPRK is from 15 October 1927 (Austin 1948); there are also 1–2 old, questionable reports (Tomek 2002). Formerly

considered 'very rare' in southern Korea (Gore & Won Pyong-Oh 1971), but now known to occur regularly (Park Jin-Young 2002). The difficulty of checking starling flocks in Pyongyang (Duckworth 2004) means this species could easily have been overlooked, if it occurs. The above date reflects that birds may remain in the winter range (Philippines) into late April, and do not begin to arrive in the northernmost breeding area (Sakhalin) until late May (Feare & Craig 1998).

COMMON STARLING *Sturnus vulgaris*

OTHER: Mundok MBR: Dongrim-ri: one in paddy stubble with a small flock of White-cheeked Starlings S. cineraceus, 22 October 2004.

The difficulty of checking starling flocks in Pyongyang means this species could easily have been overlooked. The sole previous record is also from South Pyongan province, in February 1977 (Tomek 2002). Though the first record from southern Korea was only in 1989 (Park Haeng Shin & Kim Wan-Byung 1995), it is now a scarce migrant and winter visitor, with flocks exceptionally of 100 (Park Jin-Young 2002, Moores & Moores 2005). The species is probably genuinely increasing in Korea, reflecting a similar phenomenon in Japan (Brazil 1991) and Hong Kong (Carey *et al.* 2001). Williams (1986) felt it was more frequent at Beidaihe compared with the 1930s–1940s, but it is still rare there, being recorded less than annually (J. Hornskov *in litt.* 2005).

CHINESE PENDULINE TIT *Remiz consobrinus*

PYONGYANG: Taedong: one, 1 May 1999; six, 11 May 2003. OTHER: Mundok MBR: Dongrim-ri: one, 2–3 April 2003. Namei-ri: twenty, 24 October 2004; the spring birds near stands of willow, the autumn flock in a seeding reed Phragmites bed.

Tomek (2002) traced eight previous records, the most recent in 1965, on 3 April–15 May, with one on 13 October, offering strong parallels in date with the 1999–2004 occurrences. Gore & Won Pyong-Oh (1971) described it as a winter visitor to southern Korea, and a rare passage migrant, but it is clearly not a winter visitor to Pyongyang. In Hong Kong the species is strongly tied to reedbeds (Carey *et al.* 2001), to which I had little access, so its DPRK seasonality remains unclear. It has increased around Beidaihe (Williams *et al.* 1986, 1992), in Japan (Brazil 1991) and Hong Kong (Carey *et al.* 2001) and has recently begun breeding in the Russian Far East (Nazarov *et al.* 2001); assessing whether the rising numbers recorded in southern Korea indicate real increase is difficult because true status assessment relies on use of calls (N. Moores *in litt.* 2005). Autumn passage at Beidaihe involves conspicuous visible diurnal migration (Williams 2000), which does not (yet) seem to occur at the survey sites.

SAND MARTIN *Riparia riparia*

[HYANGSAN: two flew upstream along the Chongchon River, 8 November 2002.]

Sand Martin is at best only a rare passage migrant in the survey sites: I saw few hirundine flocks too large to check all individuals, other than a few seen from a moving car between Pyongyang and Hyangsan. Tomek (2002) traced only four records, on 16 May 1980 (one bird; Mauersberger 1981), 29 May 1929 (two specimens from Ryongampho: Yamashina 1932), 13–20 September 1929 (nine collected at Manpo: Yamashina 1932), and 14 October 1962 (specimen; numbers not detailed). It is also an uncommon migrant in southern Korea (Park Jin-Young 2002, Moores *in press*), but at Beidaihe is common, though declining (Williams 1986, 2000, Williams *et al.* 1992), and many migrate through the Russian Far East coastal plain (Nazarov *et al.* 2001). That the only record of this insectivore, which winters in tropical Asia (Cramp 1988), was of birds flying north in November is astounding: in southern Korea most autumn records are in August–September, occasionally to November (N. Moores *in litt.* 2005), and at Beidaihe, it is scarce after mid October and was unrecorded in November by Williams (2000). The very similar Pale Martin *R. diluta* was not excluded; though Cheng (1987) showed its eastern boundary west of 90°E, its distribution remains poorly known, and specimens intermediate between *R. r. ijimae* and *R. diluta* were reported from north-east China by Turner & Rose (1989). It is unlikely that the 1980 or 1962 records eliminated *R. diluta* either, though the 1929 specimens were of *R. r. ijimae* and *R. r. taczanowskii* (Austin 1948). Future records merit careful documentation.

WHITE-BROWED CHINESE WARBLER *Rhopophilus pekinensis*

PYONGYANG: *Munsu*: two in rough scrub, 13 October 2003. *Taedong*: two in ornamental park hedges, 22 June and 6 July 2003.

This very distinctive species gives frequent, noticeable calls with which I was already familiar: it must be only a very rare visitor to the survey sites. Tomek (2002) traced relatively many records, largely from Pyongyang and South and North Pyongan provinces (five, 18 and four dates respectively), with 1–2 records each from four other provinces. The most recent Pyongyang record was in 1966, the last from South and North Pyongan (except two on 9 March 1990 at Anju; Fiebig 1995) were both in 1961; and the last from elsewhere was in 1962. Given the relatively high encounter rate in the 1950s and the sustained observation effort in the 1980s and in 2000–03, this species has clearly declined in DPRK. This mirrors its possible extinction in southern Korea, where Gore & Won Pyong-Oh (1971) called it rare and localised, and Park Jin-Young (2002) traced no post-1964 records. In contrast, it perhaps increased around Beidaihe between the 1940s and 1980s (Williams *et al.* 1992), but whether this trend would have continued is unclear because of large-scale recent land development (J. Hornskov *in litt.* 2005). Reasons for the apparent decline remain opaque: habitat in Pyongyang and at Fennell & King's (1963a) observation site in outer Seoul ('in fairly high grass and small pines') is in no way

special, but in both areas it occurred but sporadically. Habitat use at a regular Korean site, never described, might be more informative in understanding what limits the species' distribution. Past DPRK records were in all months except August (Tomek 2002); the 2003 records (and those from Seoul) indicate at least seasonal dispersal, but the scale is unclear.

RUSTY-RUMPED WARBLER *Locustella certhiola*

PYONGYANG: Taedong: singles, 15 June (heard singing from a small reedbed) and 14 September 2003 (in an ornamental town park hedge). *HYANGSAN*: singles in lush riverside monocotyledons, 1 June 2002 and, singing, on 18 June 2003.

Can be very skulking (e.g. Lewington *et al.* 1991) and I had little access to optimal habitat. Could be much commoner than these records suggest; it was, for instance, widely overlooked in Hong Kong until recently (Carey *et al.* 2001). Tomek (2002) traced previous records from c.5 localities, the most recent (except Pyongyang, 10 June 1985) from 1954, and falling on 11 May–8 June and 17 August–September. Spring 2003 records are thus rather later than previously, though there is one from Kyonggi province on 15 June (Austin 1948), and this period is too poorly covered in southern Korea to evaluate true abundance (N. Moores *in litt.* 2005). Tomek (2002) felt that early June records might concern local breeders, but those on 15 and 18 June 2003 were undoubtedly on passage (the sites were well covered for weeks afterwards), and spring passage through Beidaihe and the Russian Far East extends to mid June, and elsewhere in Russia birds are on passage even in late June (Williams 1986, Cramp 1992, Williams & Hsu 1992). Fennell & King (1964) found the rather similar Middendorff's Warbler *L. ochotensis*, and Gore & Won Pyong-Oh (1971) described Middendorff's and/or Pleske's Warbler *L. pleskei*, to be much commoner in southern Korea than *L. certhiola*, but the latter is sometimes a fairly common migrant near the Military Demarcation Line, especially on West Sea islands (Moores *in press*).

GRAY'S WARBLER *Locustella fasciolata*

PYONGYANG: Munsu: one in rank grass and young pine trees, 8 September 2003.

Though previously stated to breed in Korea (e.g. Cramp 1992), there is no such indication from southern Korea (Park Jin-Young 2002) and Tomek (2002) traced just five DPRK records, including one from Pyongyang in August 1991 (Báldi & Waliczky 1992); none was in September. Her label as a 'very rare' migrant may be hasty; it may simply be much overlooked: the species is 'extremely skulking' (Lewington *et al.* 1991), is 'astonishingly hard to see' (Brazil 1991) and almost silent in autumn (Cramp 1992), though spring migrants are very vocal (N. Moores *in litt.* 2005, *contra* Cramp 1992), as can be wintering birds in Hong Kong (G. J. Carey *in litt.* 2006). It is rare in autumn at Beidaihe (Williams 2000), and scarce in southern Korea (e.g. Moores *in press*).

THICK-BILLED WARBLER *Acrocephalus aedon*

PYONGYANG: Taedong: one (in song), 27 May 2001; 2–3, 7 September, singles, [11], 14 September 2003. *HYANGSAN*: one, 31 May 2002. [*OTHER*: Middle Chongchon River, 8 km south of Hyangsan: one, 31 May 2002.]. All in riverside trees and scrub.

Unlike most congeners, not specifically associated with wetlands (Lewington *et al.* 1991), to which I had little access. It seems unlikely I overlooked Thick-billed Warbler greatly at the survey sites, especially as the species habitually sings on spring passage (Cramp 1992). The few previous records were all from North Pyongan province in spring (Tomek 2002): seven collected at Ryongampho on 20–27 May 1929 (Yamashina 1932) and one there 26 May 1917; recorded at nearby Yangsi 15 May 1949; and a male at Myohyang (whether inside the current PA is unclear) 13 June 1955. My records fall within previous DPRK dates, recent sightings in southern Korea (mainly in late May and mid August–early September; Moores *in press*), and passage through Beidaihe, where it is much commoner (the second half of May, and August, usually scarce after mid September; Williams 1986, 2000, Williams & Hsu 1992). Tomek's (2002) suggestion, based on date alone, that the 1955 record might be a local breeder is rash, given the late May–early June arrival to Ussuri breeding grounds (Cramp 1992) and ongoing passage at Beidaihe into early June (J. Hornskov *in litt.* 2005). Tomek (2002) considered it a 'very rare passage migrant . . . the passage routes bypass the Korean Peninsula'. It is indeed scarce, including in mainland southern Korea (Gore & Won Pyong-Oh 1971, Moores & Moores 2005), notwithstanding day counts of up to 15 on West Sea islands such as Socheong (Moores *in press*).

RICHARD'S / BLYTH'S PIPIT *Anthus richardi* / *A. godlewskii*

PYONGYANG: Moran: singles, 14 September 2002, 17 May, 6 September 2003. Munsu: singles, 21 September 2001* (on bare earth), 18, 24 September 2002. Taedong: singles, 2 October 2000, 1 May 2002; 12, 9 September 2002; one, 27 September 2003. *HYANGSAN*: singles, 9 May*, 21 May, 20 September 2002, 28 April*, 23, 26 September 2003. *OTHER*: Anju bridge: 2+ in short estuary-side grass, 1 October 2002*. Only asterisked birds were perched, those at Hyangsan on a riverside bund covered in short turf; but most others were flying quite low and probably dispersing from roost, rather than on active migration.

Most birds sounded like wintering Richard's Pipits in south-east Asia, but I had no prior experience of Blyth's Pipit's calls. Based on relative status at Beidaihe (Williams 2000) and southern Korea (where Blyth's is very scarce in spring and rare in autumn; N. Moores *in litt.* 2005), it is probable that Richard's Pipit greatly predominated, but Blyth's may also have been involved. Tomek (2002) traced only three records of Richard's (4–12 May 1929, six specimens from Ryongampho [Yamashina 1932]; 14 September 1962; and 21 September 1967) and (dismissing a second) one of Blyth's (15 March 1956; a date so anomalous compared with recent records in southern Korea [where the earliest was on 14 April 2005; N. Moores *in*

litt. 2006] that it should also be regarded as doubtful). Evidently, large pipits have been widely overlooked in DPRK (as earlier happened in southern Korea: Gore & Won Pyong-Oh 1971), presumably because no previous observers knew their flight-calls. Given my records, Tomek's (2002) statement that Richard's Pipit's migration route 'bypasses the Korean Peninsula' needs revision; it is also regular on spring and autumn passage through southern Korea (Moores *in press*). It seems commoner at the survey sites in autumn than in spring; passage dates (late April and first two-thirds of May; last three weeks of September and earliest of October) reflect those at Beidaihe (Williams 1986, Duff *et al.* 2000), though in southern Korea Richard's Pipit occurs into November (Moores *in press*), Tomek's (2002) statement that a specimen in juvenile plumage from 21 September is suggestive of local breeding is without foundation, given that passage through Pyongyang is well underway by then.

PECHORA PIPIT *Anthus gustavi*

PYONGYANG: *Moran:* 1–2, 21 September 2002, singles, 6, [20] September, 4 October 2003. *Munsu:* singles, 24, 29 September 2002, 1 September 2003. *Taedong:* singles, 9 September 2002 and 7 September 2003, two, perhaps seven (including 1* in riverside ruderals), 14 September, singles, [20], 27 September, up to 31 south-east, 28 September, [one, 4 October] 2003. **HYANGSAN:** two (1*, in a densely tangled bean-field with ruderals), 20 September 2002, one, 21 May, [one, 23 September], four, 30 September 2003. **OTHER:** *Anju bridge:* two, 3 September, one, 19 September 2002. Except for asterisked records, birds were flying over, but usually low rather than on apparent migration.

I did not know this species' distinctive flight-call before autumn 2002, and it is very skulking and difficult to flush (Cramp 1988), doubtless explaining my lack of records in 2000–01. Tomek (2002) traced only seven records (including Anju, 17 May 1934; Austin 1948), the most recent from 1963, and considered it 'a scarce passage migrant . . . [that] probably travels . . . north of the Paekdusan massif'. Given the present records (frequent in autumn, extreme dates 1 September–4 October; and one spring record), and that Orii collected 11 specimens at Ryongampho, North Pyongan province, on 29 April–3 May 1929 (Yamashina 1932), it has surely been greatly overlooked, as occurred earlier in southern Korea (Fennell & King 1964, Gore & Won Pyong-Oh 1971). Austin (1948) opined that 'it is of only casual occurrence . . . south . . . [of the] northern provinces', but it is now considered a regular migrant (e.g. Moores *in press*). The present autumn dates resemble migration through Beidaihe, which continues from early September to early October (Duff *et al.* 2000), whilst in southern Korea, there is an obvious peak in mid to late September (Moores *in press*). Singles are typical on passage (Fennell & King 1964, Cramp 1988), but small, typically single-species, flocks often do occur on migration (N. Moores *in litt.* 2006); the count of up to 31 included flocks of 18 and eight from which the only calls were of Pechora Pipit, but the birds may not have all been of this species.

RED-THROATED PIPIT *Anthus cervinus*

PYONGYANG: Moran: one, 24 September 2000; two, 21, 28 September, one east, 5 October 2002; six south-east, 27 September; two south, 4 October 2003. *Munsu*: 1–2, 21 September 2001, 18, 22, 24 (south), 26 (south) September 2002, ten south-east, 29 September 2002; singles, 15 September (south), 6 October 2003. *Taedong*: singles, 23 September 2000 (south); 27 April, 3 May* (flew off Rungra islet), [15], 17, 25, 30 (south-east) September 2002; one, 14 September, two, 20 September, six, 21 September 2003, 25 south-east, 28 September 2003. *HYANGSAN*: one, [26], 28 September 2001; 40 south, 20 September, one, 23 September, two, 2 October 2002; 1–3, 28 April, 29 April (north), 4 May; singles, 16* (on wires above short riverbank grass), 23, 24 September, 2 October (south-west), [8 October] 2003. *OTHER*: *Anju bridge*: 300+, 19 September, 30, 20 September, one, 22 September, 30, 1 October, singles, 7 October 2002, 3 May 2003. *Middle Chongchon River*, 45 km south of Hyangsan: one, 20 September 2002. All birds except those asterisked were in flight, but most were low and not on active migration.

Clearly a regular passage migrant at the survey sites, much commoner in autumn than spring (like Pechora Pipit). The paucity of records pre-2002 doubtless reflects limited effort for and familiarity with flyover pipit calls. Tomek (2002) traced only 11 records, the most recent in 1965; she overlooked 11 collected around Ryongampho, North Pyongan province, on 28 April–4 May 1929, and singles at Manpo, North Hamgyong province, 4 and 8 October 1929 (Yamashina 1932), and the three (hitherto unpublished) specimens taken by Hall in Wonsan on 2–9 May 1903 (Sweet *et al.* in press). Past sites included outer Pyongyang (in 1965) but surprisingly, given Won Hong Koo's many years' residence at Anju (Austin 1948), not the Chongchon catchment. Tomek (2002) concluded that Red-throated Pipit's passage routes 'tend to bypass the Korean Peninsula', but it appears instead that previous observers did not know the distinctive flight-call; moreover, it is now considered a locally common or very common migrant in southern Korea (N. Moores *in litt.* 2005). Birds leave the Russian tundra breeding grounds in late August–early October (Cramp 1988), and pass Beidaihe from *c.* 7 September to *c.* 11 October, peaking just after mid September with a few to mid October (Duff *et al.* 2000). This reflects their appearance in Korea in mid September–early October (2000–03 records; past records 4–8 October, Yamashina 1932, Tomek 2002). Surprisingly, historical spring records greatly outnumber those in autumn (perhaps reflecting the much greater numbers of bright-plumaged birds in spring), falling on 27 April–10 May, with extreme dates 14 April and 29 May (Yamashina 1932, Tomek 2002, Sweet *et al.* in press), similar to the recent period of late April and early May, and to the Beidaihe timing of late April and first three weeks of May, but mainly the first third of May (Williams 1986). Non-breeders are markedly more gregarious than Pechora Pipits (Cramp 1988), reflected in the number of records of flocks (the largest a dispersed stream of 300 birds).

BUFF-BELLIED / WATER PIPIT *Anthus rubescens* / *A. spinoletta*

Pyongyang: Moran: one, 11 November 2001; two, 25 October 2003. *Munsu*: singles, 8, 14 April, seven south-east, 29 September 2002; 1–2, 15, 20, 22 October, 19 November 2003. *Taedong*: 1–2, 31 October 2001 (south); 28 March* (on damp ploughed earth), 2* (likewise), 10, 13, 17, 25 April, 14, 19, 21 October, 2, 4, 9 November 2003; one, 13 March* (on flattened dead reeds), two, 14 March* (likewise), one, 27 October 2004. *HYANGSAN*: two, 10 April 2002; singles, 21 April, 8, 16, 24, 30 October; nine, 17 October 2003; one, 17 March 2004. *MYOHYANG*: *Wonman*: three north, 6 April 2003. *OTHER*: *Anju bridge*: one, 19 October 2001; six, 1 October, one, 23 October 2002. *Mundok MBR*: Dongrim-ri: four, 25 March, up to 24, 21–23 October, one, 4 November 2004. Soho-ri: 20, 22 October 2004. Ryongro-ri: two, 23 October, seven, 27 October, present, 28 October 2004. Namei-ri: three, 24 October 2004. Except those at Mundok, which fed in a variety of habitats, and those asterisked on Rungra islet, Taedong, birds were flying over, mostly low and not on active migration.

I was unsure of this species-pair's calls before autumn 2001, and this, together with the lower observation effort, doubtless explains the lack of records earlier. Those by the Taedong in March 2004 were confirmed by plumage as Buff-bellied Pipit, but all others except at Mundok were identified primarily by call, and because Water Pipit *A. spinoletta blakistoni* calls are confusingly similar (Alström & Mild 2003) were identified only to species-pair. Rosy Pipit *A. roseatus* also has similar calls (Alström & Mild 2003), so could potentially have been overlooked, but it is only a vagrant to Korea (Lee *et al.* 2000). Records were doubtless at least predominantly Buff-bellied Pipit, which is common at Beidaihe, though Water Pipit is also regular (Williams 1995, 2000; J. Hornskov *in litt.* 2004). Buff-bellied is fairly common and widespread in southern Korea on passage and some overwinter (Gore & Won Pyong-Oh 1971, Moores *in press*; N. Moores *in litt.* 2005), whereas records of *A. s. blakistoni* are few (Yamashina 1932, Fennell 1959, Moores & Moores 2005). Yamashina's, rejected by Austin (1948) without direct examination, was reconfirmed by Fennell (1959), but Fennell's careful review was overlooked or discounted by Lee *et al.* (2000), who did not list Water Pipit for Korea.

Tomek (2002) traced only five spring and two autumn records of 'Buff-bellied Pipit', of which only two (21 April 1962, *c.* 10 on 19 October 1984: Tomek & Dontchev 1987) were post-1929. One of these records, of four collected in North Hamgyong province on 12–24 May 1912, and housed at AMNH (Austin 1948), actually refers to, and always was catalogued as, Olive-backed Pipit *A. hodgsoni* (P. Sweet *in litt.* 2006). However, Buff-bellied / Water Pipit is evidently regular on passage at the survey sites, being (at least occasionally) abundant at Mundok, supporting Tomek's (2002) opinion that Buff-bellied Pipit is overlooked. The present records fell during mid March–mid or late April, and late September or early or mid October–early or mid November, the latest on 19 November 2003; it passes later in autumn and earlier in spring than other pipits. This reflects timing in southern Korea, where spring numbers peak in March, extending through April and

into May, and autumn birds pass in October and November (N. Moores *in litt.* 2006). Past records spanned 11 April–3 May and 26 September–29 October. Autumn dates are similar, but historical spring records were much later than recent ones. At Beidaihe, where both species' records were analysed together, autumn passage peaked in the latter two-thirds of October, extending from early October to early November (Duff *et al.* 2000), similar to DPRK records. Spring birds occurred from late March, with significant passage in mid April to early May (Williams 1986), reflecting the past rather than present records. In spring 1994, Williams (1995) found that Buff-bellied (much commoner than Water) passed in April and the first half of May, whilst Water passed in mid March to mid April. Clarification is needed of the proportion of each species amongst DPRK records and whether they differ in timing.

Tomek (2002) also listed a 'Buff-bellied Pipit' from 1 December 1929; but this is actually a Water Pipit (Fennell 1959), and the collecting base, Kumhwa ('Kinkwa' in Yamashina 1932; 38°10'N, 127°33'E), lies just south of the Military Demarcation Line. The collection site is unclear: Yamashina (1932) assigned Orii's records only to general area and for Kumhwa records Orii may well have ranged both sides of the (future) Military Demarcation Line. Water and Buff-bellied Pipits were previously widely considered conspecific, including by Austin (1948) and, evidently, Tomek & Dontchev (1987). Yamashina (1932) identified as *A. r. japonicus* six from Ryongampho on 15 April–3 May 1929, and 11 from Manpo on 26 September–29 October 1929; but those from 3 May 1917, 11 April 1914, 14 October 1984 and 21 April 1962 (all listed as 'Buff-bellied Pipits' by Tomek 2002) should be left unidentified to species.

COMMON REDPOLL / HOARY REDPOLL *Carduelis flammea* / *C. hornemanni*

PYONGYANG: *Moran*: one, 9 November 2002, four, 8 November 2003. *Munsu*: singles, 7 November 2001, 1 November 2002 and 19 November 2003. All were calling and seen only in flight; only those on 8 November 2003 were confirmed visually as redpolls.

Birds were not seen well enough to distinguish between Hoary and Common Redpolls. Both species were listed for Korea by Lee *et al.* (2000) and Gore & Won Pyong-Oh (1971), the latter referring to three DPRK Hoary Redpoll specimens, two in February and one in November (or January; see Austin 1948, who indicated that only one of the February birds was originally identified as Hoary). These were identified without direct skin comparisons, their measurements fell well within Common Redpoll's (Austin 1948), and Tomek (2002) listed the February record under the latter, omitting the November/January record entirely. Nonetheless, the identifications should be considered open (see Water Pipit, where Austin dismissed another's identification without seeing the specimen in question and re-examination showed his action to be in error), and Hoary Redpoll has recently been found in southern Korea (N. Moores *in litt.* 2006), and occurs at Beidaihe (Williams 1995)

and in Japan (Brazil 1991). Redpoll flight-calls are distinctive, frequently given, and I was familiar with them, so it is unlikely to have been overlooked significantly, making it a very scarce autumn migrant. The c.16 previous records (including both outer Pyongyang and Myohyang), the most recent in 1966 and 1973, fall on 7–28 November and 20 January–22 February (Tomek 2002); the present records reflect the November dates and occurrence at Beidaihe: mainly in late October (exceptionally, early October) to mid November, potentially later (Williams 2000). Of all months, I made fewest observations in February–March, perhaps explaining my lack of ‘spring’ records: spring passage in Asia peaks in March (Cramp & Perrins 1994), though there are too few recent records from southern Korea or Beidaihe to permit more precise comparison (N. Moores *in litt.* 2004, J. Hornskov *in litt.* 2005). Austin (1948) described redpolls as ‘uncommon, irregular’ in Korea. By contrast, it was a ‘common but irregular winter visitor’ to southern Korea, with few if any in some years but huge flocks in others (Gore & Won Pyong-Oh 1971), reflecting erratic occurrence at Beidaihe (Williams *et al.* 1992) and ‘highly fluctuating numbers’ (abundant, to effectively absent) in Ussuriland (Cramp & Perrins 1994). That both historical Myohyang records were in winter 1956–57 (Tomek 2002), despite sustained collection there over several years, suggests this was one such invasion year. The lack of invasions to the survey sites in 2000–03 was paralleled in southern Korea, N. Moores *in litt.* (2004) knowing of only very few records in this period. Alternatively, it appears to have declined at Beidaihe since the early 20th century (Williams *et al.* 1992; J. Hornskov *in litt.* 2005) and may also be doing so in Korea.

COMMON ROSEFINCH *Carpodacus erythrurus*

PYONGYANG: Moran: one, 9 November 2002*, two, 11 January* and 11 October 2003. Munsu: singles, 22 September*, 28–29 October*, 10–11, 22* November 2002; five (four south), 6 October; singles, 9, 27 October, 10 November 2003. Taedong: 1–2, 28 September, 5, 19, 26 October 2003. **HYANGSAN:** singles, 21 April*, 9, 30 October, 14 November 2002 and [27 April 2003], four, 4 May*; singles, 23, 24 September, 7, 8, 23 October 2003. Only asterisked birds were perched; all were in dense bushy areas, mostly on or near the ground.

The only records in Tomek (2002) are from Ryonggang province (many years; 2 June–27 July), three other highland sites (15 June–8 August, and ‘May’), and the Amnok River (undated; north-west land border of Korea); the most recent was in 1967. Thus, it was previously not recorded on passage in the central Korean lowlands, where I noted the species in autumn (mid September–late October, sometimes late November), once in midwinter (11 January 2003) and thrice in spring (late April–early May). Population and range have recently expanded dramatically in Europe (Cramp & Perrins 1994), but this much greater number of DPRK records seems more likely to indicate that previous observers in central Korea were unfamiliar with its calls (and so was I, pre-autumn 2002). Equally, the species was previously a ‘rare passage migrant’ in southern Korea (Gore & Won

Pyong-Oh 1971), but is now recorded regularly on passage (Moores *in press*), with at least one record there in midwinter 2002–03 (N. Moores *in litt.* 2004). The wide seasonal spread of records, including midwinter, resembles the pattern in the British Isles (Dymond *et al.* 1989). Similarly, it visits Beidaihe (where most autumn birds are also overflying migrants; Williams 2000) from late August to early November, with peak passage late September (Duff *et al.* 2000), has apparently wintered there, and spring passage ran during the middle fortnight of May (Williams 1986). In southern Korea, most occur between late April and late May and again in September and October (N. Moores *in litt.* 2006). In Europe, spring migration is rapid (Cramp & Perrins 1994), perhaps explaining my relative lack of records then. Of all those seen well (perched and a few flyovers), the only red bird was on 21 April 2002.

JAPANESE GROSBEAK *Eophona personata*

PYONGYANG: Moran: two, 26 May 2002. Munsu: one, 20 May, two, 28 October 2002. Taedong: at least one, 26 October 2003. **HYANGSAN:** singles, [9 May 2002], 5 March 2004. **MYOHYANG:** Wonman area: three south, 15 October, 32 south, 16 October 2001; [Nyungin-am: one, 26 November 2002].

A few Japanese Grosbeaks may have been overlooked among the commoner Yellow-billed Grosbeak *E. migratoria*, with which it was seen to flock and shares similar calls, but it is clearly an infrequent passage migrant at the survey sites. Tomek (2002) traced only 7–8 records (from four sites), including Myohyang (20–25 on 30 April 1989; Fiebig 1995). She overlooked Won Pyong-Oh's (1970) reference to 'several dozen' kept captive by farmers in Tok'chun (presumably, Tokchon, South Pyongan province) in August 1945. Other past dates are: 20 April 1945; 26 May 1917 (Austin 1948); 30 May 1960; 4 June 1945; 10 June 1963; and 20 October 1984 (Tomek & Dontchev 1987). Most of the present records are from similar months (three in May and four in October), but the March and [November] sightings have no precedent in DPRK. However, it winters in north-east China (Vaurie 1959) with recent records at Beidaihe to mid November (Williams 2000), there is a 9 January 1918 record from southern Korea (Austin 1948) and a few recent November and winter records in southern Korea (Lee *et al.* 2000, Park Jin-Young 2002, Moores *in press*). Moreover, the partial migrant subspecies endemic to Japan makes movements into November (Brazil 1991). Tomek (2002) felt, based on occurrence in late May and early June, that Japanese Grosbeak probably breeds in DPRK, but this needs caution. The 2001–04 records reveal passage into late May (the species certainly did not breed in either Moran or Munsu in 2002). In southern Korea it was a rare passage migrant, occurring mainly in April–June (Gore & Won Pyong-Oh (1971); most recent spring records are in May, and breeding is not suspected (N. Moores *in litt.* 2005). Spring occurrence in 1985 at Beidaihe fell entirely in the third week of May (Williams 1986), though it mainly passes in early May (J. Hornskov *in litt.* 2005).

PINE BUNTING *Emberiza leucocephalos*

PYONGYANG: Taedong: two flushed from rank weedy growth on Rungra islet, 30 October 2004. *HYANGSAN*: [1–2 flying over on 17, 30 October], singles on 25 November 2003 and 8 March 2004, in flocks of Rustic Buntings *E. rustica* feeding in weedy vegetable plots near riverside willows.

I probably overlooked Pine Bunting rather less than some other buntings: its calls are readily recognisable to English ears, being identical to those of Yellowhammer *E. citrinella* (Beaman & Madge 1998). Nonetheless, the call-based records of October 2003 were left unconfirmed. Hybrids with Yellowhammer may be effectively indistinguishable from Pine Buntings (Byers *et al.* 1995), but are presumably very unlikely given the mere handful of Korean Yellowhammer records (N. Moores *in litt.* 2004). Tomek (2002) traced only *c.*6 records, the latest from 1967, plus two in August 1991 (Báldi & Waliczky 1992) that she rejected on grounds of unlikely date. One of these was at Myohyang (sometime during 8–12 August 1991). Past DPRK records span 28 September–30 (or 20) October and 21–26 March (Tomek 2002); thus, the 2003–04 records include significantly more ‘wintry’ dates. They are consistent with autumn dates at Beidaihe (where Pine Bunting is much commoner than in Korea) of late October–late November, occasionally early October (Williams 2000), and in southern Korea most records are in December–January, occasionally from late October (Gore & Won Pyong-Oh 1971, Park Jin-Young 2002). Though Austin (1948) traced just three records, it is too frequent to warrant the ‘vagrant’ to Korea designation in Byers *et al.* (1995); equally, in southern Korea the species is better considered a rather scarce migrant and rare, irregular, winter visitor (N. Moores *in litt.* 2005).

LITTLE BUNTING *Emberiza pusilla*

PYONGYANG: Munsu: one in dense scrub and crop stubble, 10–14 November 2001. Taedong: two in an ornamental riverside hedge, 3 May 2002. *HYANGSAN*: singles, 28 April (in a flower-bed), 8 May (in bushes with Black-faced Buntings *E. spodocephala*) and 14 November 2003 (in low bushes).

Buntings were checked sufficiently well to be sure that Little Bunting, whilst doubtless overlooked, was not frequent at the survey sites. However, in Hong Kong, most records are from open grassy habitats, including cultivation, with relatively few from shrubby edges (Carey *et al.* 2001) and in southern Korea passage migrants are mostly on arable land, and wintering flocks are mostly in reedbeds (N. Moores *in litt.* 2006): the survey sites contained little of any of these favoured habitats, so may not represent its status in DPRK. Tomek (2002) traced few DPRK records, the most recent in 1965, sites including outer Pyongyang (May 1959) and past dates span 26 April–8 May (seven records), almost identical to the 2001–03 records, and 20 October: three weeks before my earliest autumn record. It was previously also considered ‘uncommon’ in southern Korea (Gore & Won Pyong-Oh 1971), but has since been found to be common on passage and scarce in winter; spring migration

commences in March and peaks in late April, with smaller numbers into May, and autumn migration is concentrated in mid to late October, with a few still in November (Moores & Moores 2005, Moores *in press*). Occurrences at Beidaihe are also very widespread over the year, with spring passage concentrated during and after the last third of April (Williams 1986) and autumn numbers peaking in the last two-thirds of October and first third of November (Duff *et al.* 2000), a fair fit with the 2001–03 records.

YELLOW-BROWED BUNTING *Emberiza chrysophrys*

PYONGYANG: *Munsu*: singles, 2, 4 May 2002, two, 13 September 2002, one, 29 September 2003. *Taedong*: two, 12 May 2001, one, 19 May 2002, one, 25 April, four, 1 May, singles, 11 May, 7 September 2003. **HYANGSAN:** five, 28 April, three, 4 May 2003. All were in mixed bushes, shrubs and short vegetation, usually with some bare earth nearby.

I may have overlooked the species somewhat in autumn, given the denser vegetation (birds in Pyongyang were often very skulking, as elsewhere; Beaman & Madge 1998) and generally larger numbers of buntings (more of which went unidentified) than in spring. Also, young in autumn can look very similar to Tristram's Bunting *E. tristrami* (Byers *et al.* 1995), which was common at most survey sites. Tomek (2002) traced just four records, the most recent in 1958, all in spring (2–14 May; and 2 April 1958), but my records reveal it to be regular, though scarce, in spring (extreme dates 25 April–19 May), with three September records. This supports Tomek's (2002) suspicion it had been overlooked, as happened in southern Korea, from where Austin (1948) traced no records, but it is now known to be fairly common, in flocks of up to 125 (Moores *in press*). In the 1940s at Beidaihe, records showed a seasonal split similar to my survey sites, being not infrequent in spring, but with only one in autumn, yet recent sightings show no such strong pattern (Williams 2000). The historical DPRK record on 2 April is much earlier than 2001–03 dates, yet the spring period for southern Korea in Gore & Won Pyong-Oh (1971), February–March, is even more so, and is anomalous with recent records there, in mid April–mid May (N. Moores *in litt.* 2004), and at Beidaihe, late April–mid May (Williams 1986; J. Hornskov *in litt.* 2005). However, for the first time, a small flock wintered at Beidaihe in 2004–05 (J. Hornskov *in litt.* 2005). Neighbouring sources agree on a more prolonged autumn passage than my 2001–03 records: in southern Korea, September–November (Gore & Won Pyong-Oh 1971) or mid September–late October, exceptionally early November in the far south-west (N. Moores *in litt.* 2004); and at Beidaihe, a few in late August, throughout September–October, peaking halfway through, occasionally to early November (Duff *et al.* 2000; J. Hornskov *in litt.* 2005).

OCHRE-RUMPED BUNTING *Emberiza yessoensis*

PYONGYANG: Taedong: one in the Rungra islet reeds, 9 and 12 November 2003. *OTHER: Mundok MBR:* Dongrim-ri: two in tall reeds, 23 October 2004. Ryongro-ri: one in a richly weedy rice stubble, 27 October 2004.

Ochre-rumped Bunting may have been overlooked at the survey sites (the Rungra reeds were not well covered before autumn 2002) which in any case would not well represent its status in central Korea, the only extensive suitable habitat visited (wetlands with tall grass and scrub; BirdLife International 2001) being at Mundok. Moreover, unlike other 'reed buntings', the call is an anonymous *tic* similar to various other buntings, including Black-faced Bunting which also skulked in the Rungra reeds. Tomek (2002) traced just 7–9 records, the most recent in 1961, mostly on or near the coast. Apart from second-hand reports from Ryongampho, South Pyongan province, in May–June 1917 (Kuroda 1918), records were from 22 September to 27 February, with one on 20 April. Autumn passage at Beidaihe starts in mid October, with most in late October–early November (Duff *et al.* 2000), meaning that the autumn 2004 visit to Mundok was well timed to find this species. In southern Korea it is a scarce migrant and winter visitor, primarily to the west coast, with many fewer than 100 reported annually (Moores & Moores 2005; N. Moores *in litt.* 2005), and as the species is globally Near Threatened (BirdLife International 2001) the Mundok area, and the rest of the Chongchon estuary, merits a proper survey for it.

LAPLAND LONGSPUR *Calcarius lapponicus*

PYONGYANG: Taedong: one flew low over, 8 November 2004. [*HYANGSAN:* singles flying over, 15 November 2002 and 17 March 2004]. *OTHER: Anju bridge:* [singles, 25 November 2002 and 26 November 2003, c.1,000, 11 March], 35, 15 March 2004, all low over extensive brackish marsh and fields; found on brief roadside stops; no foot access there. *Mundok MBR:* Ryongro-ri: three flew low over, 28 October 2004.

Except at Anju bridge, I had only very rare access to optimal habitat (in Korea, coastal open country and dry rice fields: Gore & Won Pyong-Oh 1971). The six previous records, the most recent in 1972, were from only four sites (Tomek 2002). Dates are 6, 10, 31 (*sic, fide* Austin 1948) November, February, 19 March, 4 April, 11 May. This wide spread contrasts with the present records clustering within one month in autumn and a week in spring, and perhaps it is but a passage migrant inland. The autumn period resembles that at Beidaihe: most in the last third of October, with smaller numbers from mid October to late November (Duff *et al.* 2000). It may be much overlooked in DPRK: Fennell & King (1964) felt that their 'observations indicate that it may be of far more common occurrence [in southern Korea, whence Austin (1948) traced only a handful of records] than originally supposed' and it is indeed common there, especially on the west coast, mainly in late October–March (N. Moores *in litt.* 2005). At Beidaihe it has probably declined,

perhaps reflecting climatic amelioration (Williams *et al.* 1992), and this may also contribute to the few recent DPRK records.

Concluding remarks

The status of most of these species can fairly be determined for the survey sites because coverage was year-round and sufficiently intensive (at least several hours per day on 729 days, plus 15 days contributed by R. J. Tizard) to characterise all species except those very skulking, nocturnal, associated with infrequent weather events, highly localised in occurrence, and/or readily misidentified as other species. However, the DPRK-scale status assessments of Tomek (1999, 2002) cannot so readily be revised because my coastal observations were so limited and most of these purportedly rare species would be expected to be commoner there. Some are coastal (Baikal Teal, Slaty-backed Gull, Black-legged Kittiwake, Marbled Murrelet, Red-necked Grebe, loons and Ochre-rumped Bunting), and even most others (except Grey-capped Pygmy Woodpecker, Eurasian Eagle Owl and White-browed Chinese Warbler, possibly also Little Owl and Solitary Snipe), being long-distance migrants, presumably occur more often on the coast than inland. Indeed, of the 49 species detailed above, eight were found at the coastal Mundok Migratory Bird Reserve, two at Kuwol (which lies closer to the coast than the survey sites), even though only ten and four days respectively were spent at each, and ten at Anju bridge (over the tidal Chongchon), a site surveyed only during brief roadside stops. There was also limited suitable habitat at the survey sites for Yellow-legged Buttonquail, Grey-headed Lapwing, Oriental Pratincole, White-winged Tern, Cinereous Vulture, Eurasian Marsh Harrier, Purple Heron, Intermediate Egret, Bluethroat and Rusty-rumped Warbler; records of which largely involved overflying birds, involuntarily grounded migrants, and/or the limited time outside the survey sites. Hence, extensive further observations are needed to clarify the basic status of these, and the coastal, species in suitable habitat in the DPRK.

Of the remaining species, there is persuasive evidence that only one, Black-crowned Night Heron, is genuinely expanding its range (as apparently is Eurasian Blackbird *Turdus merula*, previously unrecorded in northern Korea but now regular in at least Pyongyang; Duckworth 2004), though others may be doing so (e.g. Common Starling). The number of recent records makes clear that Baikal Teal, Oriental Honey-buzzard, Intermediate Egret, Japanese Waxwing, Siberian Rubythroat, Chinese Penduline Tit, Thick-billed Warbler, Richard's/Blyth's Pipit, Pechora Pipit, Red-throated Pipit, Buff-bellied/Water Pipit, Common Rosefinch, Japanese Grosbeak, Little Bunting, Yellow-browed Bunting, Lapland Longspur and perhaps Pine Bunting are not genuinely rare in DPRK, and most or all have simply have been overlooked previously. In all cases the larger volumes of mostly unpublished recent data from southern Korea support this assessment (e.g. Moores *in press.*).

True DPRK status remains elusive for those species still known only by few records: some are difficult to judge because they may be readily overlooked, e.g. Solitary Snipe, Eurasian Eagle Owl, Long-eared Owl and Gray's Warbler. Others might be genuinely rare, at least inland, especially those for which the survey sites apparently hold suitable habitat, including Grey-capped Pygmy Woodpecker, Little Owl, Short-eared Owl, Common Starling, Sand Martin, White-browed Chinese Warbler and Common/Hoary Redpoll. The same may also be true for a suite of landbirds which breeds in Japan (and in some cases associated islands) but not on the Korean peninsula or north-east Asian mainland, Brown-headed Thrush (if it occurs at all), Narcissus Flycatcher (excluding the distinctive Chinese taxon *F. (n.) elisae*), Japanese Robin and Chestnut-cheeked Starling. Four other species of similar distribution (Vaurie 1959, Weprintsev *et al.* 1990), Japanese Thrush *Turdus cardis* (also with a disjunct population in east China), Sakhalin Leaf Warbler *Phylloscopus borealoides*, Japanese Yellow Bunting *Emberiza sulphurata* and Grey Bunting *E. variabilis* were not recorded at all. All eight were traditionally regarded as vagrants to Korea (e.g. Gore & Won Pyong-Oh 1971), but recent observations on the south coast and islands have shown them all (except, as yet, Sakhalin Leaf Warbler) to be regular, in some cases numerous, migrants (N. Moores *in litt.* 2004). Because no species with such a distribution has been found regularly in DPRK, it seems safe to assert that in inland central Korea they really are rare. Coastal observations are needed to assess whether this is true for DPRK as a whole, which is quite plausible: in five autumns' intensive surveying at Beidaihe, not one of these species was recorded by Williams (2000) and all, if occurring at all, must be very rare there.

Breeding status has been patchily determined for the Korean avifauna. For many species, breeding in DPRK has been proposed or inferred solely from the date of one or a few DPRK records by comparison with known timing of breeding in nearby countries. This is risky, because it takes no account that breeding timing and hence migration may differ greatly (by weeks) between populations of a given species, nor that in some species first-years may travel significantly later in spring than do adults (Wernham *et al.* 2002). Hence, onward passage birds of a given species may overlap with local arrivals already nesting. Of the species reviewed above, though stated elsewhere to perhaps or even probably breed in DPRK, there is no persuasive evidence that Marbled Murrelet, Oriental Honey-buzzard, Brown-headed Thrush, Narcissus Flycatcher, Japanese Robin, Rusty-rumped Warbler, Gray's Warbler, Thick-billed Warbler, Japanese Grosbeak or Ochre-rumped Bunting do so. Surveys have been inadequate to state that they do not, and on the basis of distribution in neighbouring countries it is highly likely that some do, but direct evidence of this is needed.

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